

STATE OF NEW YORK

DIVISION OF TAX APPEALS

In the Matter of the Petition	:	
of	:	
REYNOLDS METALS COMPANY	:	DETERMINATION
	:	DTA NO. 814694
for Revision of a Determination or for Refund of Sales and	:	
Use Taxes under Articles 28 and 29 of the Tax Law for the	:	
Period December 1, 1989 through May 31, 1992.	:	

Petitioner, Reynolds Metals Company, P.O. Box 85587, Richmond, Virginia 23285, filed a petition for revision of a determination or for refund of sales and use taxes under Articles 28 and 29 of the Tax Law for the period December 1, 1989 through May 1, 1992.

A hearing was held before Marilyn Mann Faulkner, Administrative Law Judge, at the offices of the Division of Tax Appeals, 500 Federal Street, Troy, New York, on October 24, 1996 at 9:30 A.M., with all briefs to be submitted by May 2, 1997, which date commenced the six-month period for the issuance of this determination. Petitioner appeared by Morrison & Foerster, LLP (Paul H. Frankel, Esq. and Craig B. Fields, Esq., of counsel). The Division of Taxation appeared by Steven U. Teitelbaum, Esq. (Brian J. McCann, Esq., of counsel).

ISSUE

Whether certain equipment or machinery was used directly and predominantly in the production of aluminum within the meaning of Tax Law § 1115(a)(12).

FINDINGS OF FACT

1. Petitioner, Reynolds Metals Company ("Reynolds"), is engaged in the business of producing aluminum in its facility at Massena, New York. The Division of Taxation ("Division") conducted an audit of petitioner's facility for the period December 1, 1989 through May 31, 1992.

2. The Division's auditor determined that petitioner owed a sales tax deficiency in the amount of \$246,056.65 on certain expense and asset purchases. The auditor reasoned that ten

pieces of equipment purchased were not used directly in production because they did not have an active causal relationship to the production of aluminum.

3. Petitioner paid the tax on the expense items but disputed the tax asserted with respect to the ten asset items. The Division issued to petitioner a Notice of Determination, dated July 29, 1994, asserting tax due for the period December 1, 1989 through May 31, 1992 in the amount of \$130,856.60, plus \$56,273.15 in interest, for the total amount of \$187,129.75.

4. Petitioner requested a conciliation conference with the Bureau of Conciliation and Mediation Services. After a conference, the conferee issued a conciliation order, dated November 3, 1995, recomputing the statutory Notice of Determination by reducing the tax deficiency to \$121,864.00. The conferee determined that tax should be cancelled with respect to the purchase of forklift trucks.

5. Reynolds filed a petition, dated January 23, 1996, challenging the tax assessment on six asset purchases, namely: a cathode transporter, Kent pedestal, transformer, raw water transformer,¹ hand torch and arc welder. Petitioner asserted that the first four items of the equipment are used to produce and install linings in pots which are an integral part of the aluminum manufacturing process.

6. At the hearing held on October 24, 1996, three witnesses testified on behalf of petitioner. Two of the witnesses provided credible testimony concerning the operation of the equipment in question. A third witness, who holds a Ph.D. in thermodynamics, physical chemistry and electrochemistry, provided expert testimony on the process of manufacturing aluminum. Petitioner also submitted into evidence an article published in the National Geographic on the development of techniques to manufacture aluminum.

7. Reynolds produces aluminum by dissolving alumina, a compound of aluminum and oxygen, in a molten cryolite bath and applying an electric current to separate the alumina into its components parts of aluminum and oxygen. The ingredients necessary for the production of

¹At the hearing held on October 24, 1996, petitioner and the Division of Taxation agreed that the raw water transformer was a misnomer and instead the switchgear was the piece of equipment the purchase of which the auditor found subject to sales tax.

100 pounds of aluminum are 192 pounds of alumina, 25 pounds of cryolite, 50 pounds of carbon, 18 pounds of aluminum fluoride and 17,000 kilowatt hours. This process takes place in a reduction cell that consists of an anode and cathode. The reduction cells are known as "pots". There are 504 pots in the Massena facility. These pots are placed in a continuous line allowing for the flow of electricity from cell to cell in a circular fashion.

8. Aluminum is siphoned out of each pot daily into a crucible. The aluminum is then transported to a casting facility where it is either poured into molds or put into holding furnaces and alloyed with various materials to form into various shapes and sizes.

9. The cathode or bottom portion of the reduction cell consists of a steel shell and a carbon lining. The bottom of the lining consists of prebaked carbon cathode blocks. A carbon paste consisting of crushed anthracite and pitch is rammed between these cathode blocks and up the sides of the steel shell.

10. Technically, the cathode is the surface of the lining; however, in general, reference to the cathode includes both the steel shell and carbon lining. The cathode is essential to the electrolytic process used in the production of aluminum. The electric current passes through the cathode surface, which acts as a conductor, to the anode or top portion of the reduction cell. The passage of the electric current between the anode and cathode causes the alumina to decompose into aluminum and carbon dioxide. The electricity then passes down through the carbon lining and into steel bars embedded into the carbon lining and then passes into a "bus" which carries the electrical current from one reduction cell to another reduction cell.

11. The steel shell of the cathode has a useful life of approximately 30 years; however, the carbon lining has a useful life of 5 to 6 years. As a result of the electric current passing through the carbon cathode lining and the reaction of metallic sodium with the carbon in the lining, the carbon lining continually degrades to the point where it is no longer an economic conductor of electricity. The ability of the cathode lining to conduct electricity is further compromised by the build up of encrusted alumina on the bottom of the lining and the absorption of other chemicals into the lining. The thinning of the sidewalls increases the heat

loss in the cathode. Because of the increased problems with energy distribution and heat loss over time, it becomes impractical and uneconomical to continue operation of a particular cell near the end of its useful life.

12. When the cathode lining is no longer useful, the reduction cell is taken out of the pot line by short circuiting the current to that cell. The aluminum and bath that are contained in the carbon lining of the cell are removed and the anode is raised to allow the cathode to cool down. After a two-day cooling period, the anode is lifted by crane and moved to another area. Prior to the late 1980s, the carbon lining was removed manually while the cathode was in the pot room. A newly-built cathode weighs approximately 40 tons, whereas a spent cathode weighs approximately 80 tons because of the buildup of materials. To remove the spent lining, employees would use hammers to manually break up and remove portions of the lining. When the weight of the cathode was reduced by this process to less than 44 tons, an overhead crane was used to move the cathode to the end of the pot building where a new cathode lining was constructed.

13. In the late 1980s the Environmental Protection Agency ("EPA") classified the spent cathode lining as a hazardous waste because it contained minute amounts of sodium cyanide. Consequently, the lining could no longer be removed in the pot room but had to be removed in a contained facility. Reynolds thereafter erected a separate building located 150 yards from the pot room called the cathode digging building.

14. Because spent cathodes weigh approximately 80 tons, Reynolds specially ordered a cathode transporter to lift spent cathodes out of the pot line and to transport them from the pot room to the cathode digging building where spent linings are removed and new linings constructed. Also, because of its hazardous waste classification, the lining could no longer be removed manually. Therefore, petitioner purchased a Kent pedestal specially designed to remove the cathode lining. The Kent pedestal has a hydraulic hammer to break up the lining and a bucket to pick up the broken debris. Any remaining material is cleaned from the inner walls with scrapers, shovels and brooms. Since their purchase, the cathode transporter and Kent

pedestal have been used exclusively in the removal of the spent cathode lining.

15. After the spent lining is removed, the steel shell is refurbished by straightening the shell or welding cracks or corners of the shell. A new cathode lining is built in the steel shell in a separate pot rebuilding component of the cathode digging building. Petitioner constructs the new cathode lining by first installing alumina insulation and then a ceramic barrier in the steel shell. Precast carbon cathode blocks are laid on top of this insulation and barrier on the bottom of the steel shell. Petitioner's employees then use shovels and tools known as tampers to ram a carbon paste consisting of crushed anthracite and pitch between these blocks and up the sidewalls of the shell to seal and protect the steel shell which acts as a container for the lining. This construction process takes three to four days to complete. Once the cathode is completed, a wagon returns the cathode to the pot line. A wagon is used instead of the cathode transporter because the new cathode weighs only 40 tons, and therefore, the cathode transporter is not necessary. Once the cathode is returned to the pot line, the anode portion of the cell is placed on top of the cathode portion.

16. The Massena plant has 503 pots arranged in three pot lines of 168 pots each. The pots are placed end to end in a series allowing for the continuous flow of electricity from one pot to another. Inasmuch as the useful life of a pot lining is between five and six years, the process of replacing pot linings takes place on a continuous basis at the Massena plant. Every day petitioner is involved in one stage or another in the construction of a new cathode lining.

17. In addition to this replacement process, petitioner has maintenance procedures with respect to repairs to pots in operation. These repairs take place while the reduction cell is on the pot line. Such repairs include the welding of cracks to the outside of the steel shell, or the removal of the anode to dig out materials that have built up on the surface of the lining but do not involve digging out the lining itself. Neither the Kent pedestal nor the cathode transporter is used to perform this type of maintenance.

18. The third and fourth pieces of equipment, the purchases of which the Division asserted were subject to sales tax, are a transformer and switchgear located in the cathode

digging building. Both pieces of equipment are used exclusively to provide electric power to the cathode digging building. The transformer converts the voltage from the 138 kilovolt transmission line around the Massena plant to 480 volts. The transformer feeds power to the switchgear which distributes the power to the motor control center, which in turn provides power to the various motors located in the cathode digging building, including the Kent pedestal and various cranes used to move the steel shells.

19. The last two pieces of equipment, the purchases of which the Division alleged were subject to sales tax, are the hand torch and arc welder. Petitioner uses both pieces of equipment in the fabrication of new tools used in the Massena plant. The hand torch is a plasma arc cutter used to cut sheet metal into various shapes and sizes. The arc welder then welds the cut sheet metal to fabricate tools used in the production process. These tools include pot rakes (used to rake material from the anode), pot muckers (used to break the crust that forms over the molten cryolite and to push debris and foreign material away from the path of the siphon), and skimmers (used to skim and remove the thin oxide layer that forms on the surface of the siphoned metal in the crucible as the metal is poured into molds).

20. The hand torch and arc welder are not used for the repair of tools but only in the fabrication of new tools. When these tools are worn out or break, they are sold off as scrap metal. For example, skimmers have a useful life of about a week under continual usage. Petitioner extends the useful life of the skimmers by rotating five or six of them at a time. The hand torch and arc welder themselves have a useful life of approximately ten and five years, respectively.

SUMMARY OF THE PARTIES' POSITIONS

21. Petitioner argues that the cathodes are directly used in the production of aluminum as they have an active causal relationship in the production of the aluminum sold; and that because the cathode transporter, Kent pedestal, transformer, and switchgear play an integral role in the production of new cathodes, which are essential to the production of aluminum, those items also are used directly in the production of aluminum. Petitioner contends that the four items are

used exclusively in the continuous process of constructing new cathodes which have a limited useful life and are necessary to the production cycle of aluminum. Citing Matter of Niagara Mohawk Power Corporation v. Wanamaker (286 App Div 446, 144 NYS2d 458, affd 2 NY2d 764, 157 NYS2d 972), petitioner argues that if it were unable to construct new cathodes, its ability to produce aluminum would be seriously impaired inasmuch as the construction of new cathodes is integrally related to the production of aluminum. Petitioner objects to the Division's assertion that the four items are merely involved in the repair of cathodes and cites to several Tax Appeals Tribunal decisions, a Canadian court decision and decisions in other states in support of its position that equipment which plays an essential role in the production cycle is exempt from tax. Petitioner argues that the fact the equipment is used in transportation does not preclude the exemption. Petitioner also relies on examples 9 and 10 of the Division's regulations (20 NYCRR 528.13[c][3]) for support.

In the alternative, petitioner contends that if the four items are determined to be involved in the repair, rather than the construction of new cathodes, then the items should be exempt from tax as supplies used to maintain exempt production equipment under Tax Law § 1105-B and 20 NYCRR 528.13(a)(1)(iii) and (e)(3). Similarly, petitioner argues that because the tools made by the hand torch and arc welder are used directly and predominantly in the production of aluminum, the hand torch and arc welder are exempt from tax under Tax Law § 1105-B and 20 NYCRR 528.13(a)(1)(iii).

22. The Division argues that none of the items in question is used "directly" in the production of aluminum. The Division notes that under the regulation (20 NYCRR 528.13[c][2]), machinery and equipment that are used in "activities collateral to the actual production process" are not deemed to be used directly in production. The Division contends that the cathode transporter and Kent pedestal serve a transportation and repair or reconditioning function; that the process of installing a new cathode lining comes within the meaning of maintenance and therefore the two items are used in activities that are administrative in nature; and that the two pieces of equipment are not used directly in

"production" because they are used away from the production line. The Division asserts that Matter of Niagara Mohawk does not support petitioner's position that the two items are integrally related to the production of aluminum. The Division argues that although the equipment is involved in a continuous reconditioning process, this process is not synchronized and integrated with the actual production line in the same sense as suggested in Matter of Niagara Mohawk. The Division rejects petitioner's argument that the items themselves have an "active causal relationship" in the production of aluminum within the meaning of 20 NYCRR 528.13(c).

The Division also disputes petitioner's argument that the cathode transporter and Kent pedestal are used in the production of equipment used in the production of aluminum. The Division points out that the two items are used before the installation of the new cathode lining and not in the actual production of the lining. The Division further argues that the transformer and switchgear have no active causal relationship to the production of aluminum and that none of the electric current related to the two items is used by machinery or equipment in the production line. Finally, the Division asserts that the hand torch and arc welder are tools and that the exemption under 20 NYCRR 528.13(c)(3) for machinery and equipment used to make other machinery and equipment used in production does not apply to tools used to make other tools used in the production of tangible personal property.

23. In its reply brief, petitioner asserts that the replacement of the cathode lining is not merely a repair but the manufacture of a new asset; that a repair is an activity which mends an item to restore it to its original condition whereas here a new cathode lining is constructed and placed in a different location on the pot line; that the types of maintenance, which are consistent with the description of repairs and maintenance in the Division's regulations, are performed while the cathode remains on the pot line; that the case law demonstrates that the fact an item is not located directly on the production line does not prove the item is not used directly in production; that each of the items contributes continuously to the production process and each is integrated and harmonized with the production process; and that contrary to the Division's

assertion, Tax Law § 1105-B specifically exempts from tax "tools" used or consumed directly and predominantly in the production of tangible personal property.

CONCLUSIONS OF LAW

A. Tax Law § 1115(a)(12) exempts from sales and use taxes "[m]achinery or equipment for use or consumption directly and predominantly in the production of tangible personal property for sale, by manufacturing, processing, generating, assembling, refining, mining or extracting" A statute or regulation authorizing an exemption will be construed against the taxpayer "unless it would defeat the settled purpose of the statute" (Matter of G & B Publishing Co., Inc. v. Department of Taxation and Finance, 57 AD2d 18, 392 NYS2d 938, citing Matter of Grace v. New York State Tax Comm., 37 NY2d 193, 197, 371 NYS2d 715, 719).

Under the regulations, the term "production" is defined to include "the production line of the plant starting with the handling and storage of raw materials at the plant site and continuing through the last step of production where the product is finished and packaged for sale" (20 NYCRR 528.13[b][1][ii]). The regulations differentiate machinery or equipment used in "production" from machinery or equipment used in (1) "administration", which includes activities such as sales promotion, general office work, maintenance, transporting, receiving and testing of raw materials (20 NYCRR 528.13[b][1][i]), or, used in (2) "distribution", which includes all operations subsequent to production, such as storing, displaying, selling, loading and shipping finished products (20 NYCRR 528.13 [b][1][iii]). In the regulations, it is noted that the exemption applies only to machinery or equipment used directly and predominantly in the production phase as opposed to machinery or equipment used in the administration or distribution phases (20 NYCRR 528.13[b][2]).

In addition to the requirement that the exemption applies only to machinery or equipment used in the production phase, the regulation requires that the machinery or equipment be used "directly and predominantly" in the production phase as opposed to used in activities collateral to the actual production process. The regulation sets forth criteria in determining whether

equipment is used "directly" in production. 20 NYCRR 528.13(c)(1) provides that:

"Directly means the machinery or equipment must during the production phase of a process:

- (i) act upon or effect a change in material to form the product to be sold, or
- (ii) have an active causal relationship in the production of the product to be sold, or
- (iii) be used in the handling, storage, or conveyance of materials or the product to be sold, or
- (iv) be used to place the product to be sold in the package in which it will enter the stream of commerce."

20 NYCRR 528.13(c)(3) also provides that machinery used to produce other machinery or equipment or parts for self use in production is considered to be used directly in production. Examples under the regulation include (1) machinery used to construct molds, which form the products being manufactured for sale, and (2) a lathe in a machine shop to make new machinery which is used to produce tangible personal property for sale.

B. From the evidence, it is clear that the cathode lining is used in the production phase and has an active causal relationship in the production of aluminum. Relying primarily on Niagara Mohawk Power Corp. V. Wanamaker (*supra*), petitioner's theory is that the cathode transporter, Kent pedestal, transformer, and switchgear are used in the production phase also because the construction of new cathode linings is an everyday continuous process that has been integrated into the production cycle. Petitioner notes that because of the limited useful life of the cathode lining due to erosion and buildup of chemicals resulting from the electrolytic process in producing aluminum, a reduction cell is removed from, or added to, the pot line every few days on a continuous basis. In contrast, the Division argues that the four items of equipment are used in a maintenance function in the restoration of the cathode and that this maintenance takes place away from the production line. Therefore, argues the Division, the equipment is used in the administrative phase and not the production phase and is not used directly or predominantly in production but instead in activities collateral to production.

In Niagara Mohawk, the Appellate Division held that various ash and coal handling

equipment such as a crane and car dumper, conveyor belts, crushers, sprayers and metal detectors, which process the coal as it moves along the belts, and slag lines and pumps and a narrow gauge railway, which carry the ash and slag from the boiler, are directly and exclusively used in the production of electricity. In reaching this determination, the Court reasoned that a breakdown in this equipment would quickly stop or impair the output of electricity and that all the equipment, including structures that supported, braced and housed the machinery, worked together to make up an integrated, harmonious and synchronized system. The Court further noted that a taxing statute should receive a practical construction and that resolutions in the application of the statute should strike a balance between the policy of avoiding multiple taxation and the need for raising revenue.

Petitioner also relies on three Tax Appeals Tribunal cases to support its position that the four items are used directly in the production of aluminum (Matter of Qualex, Inc./Carhart Photo, Inc., Tax Appeals Tribunal, February 23, 1995; Matter of Deco Builders, Inc., Tax Appeals Tribunal, May 9, 1991; Matter of B.R. DeWitt, Inc., Tax Appeals Tribunal, September 19, 1991). In Qualex, the question was whether equipment used to process photographic negatives was an essential and active part in the production of photographic prints. In holding that the equipment was directly and predominantly used in the production of photographic prints, the Tribunal emphasized that in order for the film to be processed into photographic prints, the exposed film must first be processed into negatives. The Tribunal determined that the production line encompassed the equipment needed to process the film into negatives as well as the equipment to produce the prints. The Tribunal reached this conclusion notwithstanding the fact that the taxpayer would also produce prints from negatives not processed by the taxpayer.

In Matter of Deco Builders (*supra*), the Tribunal held that staves, which were used in the assembly of a penstock, constituted equipment used directly and predominantly in the production of tangible personal property. In that case, the purpose of the penstock was to concentrate and direct the flow of water against blades of a turbine to generate electricity which

in turn was used in the production of paper. The Tribunal found that without the penstock, it would be virtually impossible to generate electricity and that the incorporation of the staves into the construction of the penstock could be "accomplished effectively only through on-site assembly." The Tribunal also found it inconsequential that the taxpayer could have purchased all its electricity from an outside utility rather than generating the electricity itself. The Tribunal also rejected the requirement that the equipment in question must act directly on the product being sold noting that 20 NYCRR 528.13(c)(3) provides that machinery used to produce other machinery, equipment, or parts which are then used in the production process, are considered to be used directly in production.

In Matter of B.R. DeWitt (*supra*), the Tribunal held that concrete mixer trucks, as well as the components to build a mixer truck, were exempt pursuant to Tax Law § 1115(a)(12); that the fuel consumed by the trucks was exempt from tax pursuant to Tax Law § 1115(c); and that the purchases of parts and supplies for the mixer trucks were exempt pursuant to Tax Law § 1105-B(a). The Tribunal opined that "the correct analysis requires an evaluation of the equipment in the context in which it is used [cite omitted] to determine whether the equipment is directly used in production Simply identifying equipment as transportation equipment is no substitute for this analysis." The Tribunal noted that transportation equipment used during the production phase qualifies for the exemption, and that in this case, because the transportation activity occurred subsequent to the handling and storage of the raw materials at the plant, it was intimately and directly connected to the process of producing concrete.

C. From these cases, it is apparent that "[t]he determination as to whether a particular piece of machinery qualifies for the exemption depends upon the peculiarities of a taxpayer's operation and must be individually assessed on its own fact pattern" (Matter of Deco Builders, Inc., *supra*, citing Matter of Rochester Independent Packer, Inc. v. Heckelman, 83 Misc 2d 1064, 374 NYS2d 991, 993). In this case, the cathode transporter and Kent pedestal are used directly in production because they constitute machinery used to produce other machinery, equipment or parts (cathode linings) which are then used in the production process (*see*, 20

NYCRR 528.13[c][3]). Petitioner has demonstrated that cathodes are removed from the pot line, and new cathode linings constructed in the cathode digging building, on a continuous basis. With 503 reduction cells in operation and a useful life of 5 to 6 years for each cathode lining, approximately 100 reduction cells are replaced on the pot line each year. The fact that cathodes are removed from the pot line itself in order to construct the new cathode linings in the cathode digging building does not mean that this activity occurs outside the production phase. As noted in the regulations, the production phase begins with the handling and storage of raw materials at the plant site and ends when the product is finished and packaged for sale. Without the removal of spent cathodes and construction of new cathodes on this continuously rotating basis, the amount of aluminum produced would be seriously impaired in a relatively short period of time just as interference in the construction of the penstocks used to produce electricity in Deco Builders would have impaired the production of paper. Therefore, the constant rotation of spent and new cathodes was necessary to ensure a certain level of aluminum production on a continuous and uninterrupted basis. In Deco, the Tribunal noted that it was irrelevant that the taxpayer could have bought all its electricity from an outside utility rather than generating it itself. Here, the facts are even more compelling that the removal and replacement of the cathode linings are part of the ongoing production process and cannot economically or pragmatically take place except on a daily basis at this on-site facility.

Furthermore, contrary to the Division's claims, petitioner has shown that these activities do not constitute simple maintenance or reconditioning of the spent cathode linings, but involve the total removal of the old cathode lining and the construction of an entirely new cathode lining which, similar to the construction of the penstocks in Matter of Deco Builders (supra), could be accomplished effectively only through on-site assembly. The fact that the spent cathode weighs approximately 80 tons and the new cathode weighs approximately 40 tons belies the notion that these activities involve the mere reconditioning or maintenance of the cathode linings. As noted by petitioner, these activities contrast with the maintenance and repair activities which involve welding cracks to the outside of the steel shell or digging out

built-up materials on the surface of the cathode lining while the cathode is on the pot line. Thus, there is no merit to the Division's argument that the process of installing a new cathode lining is a maintenance activity that is administrative in nature.

The next inquiry is whether the cathode transporter and Kent pedestal are used "directly and predominantly" in the production of tangible personal property for sale. The Division argues that the two items are not used directly in production because they are used before the installation of the cathode lining and not in the actual production of the lining. The Division argues that the items serve a transportation or repair or maintenance function.

Based on the definition of "directly" in 20 NYCRR 528.13(c)(1), these two items have an active causal relationship in the production process. Similar to the relationship of the penstocks to the production of electricity, essential to the process of constructing the new cathode linings are the cathode transporter and Kent pedestal. As noted above (Findings of Fact "12" and "14"), the cathode transporter was used specifically to remove spent cathodes weighing approximately 80 tons from the pot line and deliver them to the cathode digging building for new linings. Because of the EPA requirements concerning hazardous waste material, spent cathode linings could no longer be removed manually in the pot line building. Therefore, because the other transporters could not lift 80 tons, the cathode transporter was purchased exclusively for removal of spent cathodes. Similarly, the Kent pedestal was purchased exclusively to dig out the spent cathode linings that could no longer be removed manually. Inasmuch as the removal of the spent cathode lining was essential to the construction of a new cathode lining, the cathode transporter and Kent pedestal fall within the production exemption of Tax Law § 1115(a)(12) (see, Matter of Envirogas v. Chu, 114 AD2d 38, 497 NYS2d 503, 507). In Envirogas, the Court held that water trucks were exempt as equipment used in the production of gas. In that case, water trucks were used to haul water to the production site and to remove waste water and fluids used in the drilling and hydrofracture procedures as well as impurities from the gas. Similar to the situation in Envirogas, the cathode transporter and Kent pedestal were essential in the removal of waste material -- a prerequisite in the production of new cathode linings. The

continuous removal of spent cathode linings and production of new cathode linings, in turn, were essential to maintain a certain level of aluminum production.

D. The next issue is whether the transformer and switch gear used to provide electricity to the operations of the cathode digging building constitute equipment or machinery used directly and predominantly in the production of aluminum within the meaning of Tax Law § 1115(a)(12). As noted above (Finding of Fact "18"), these two pieces of equipment are used exclusively to provide electric power to the cathode digging building to operate the Kent pedestal and other motors used to transport the old and new cathodes during the construction of the new cathode linings. Based on these facts, the transformer and switchgear are used exclusively and predominantly in the production of aluminum because they are used in the production phase to produce machinery or equipment which are used directly in the production of aluminum (see, Matter of Deco Builders, Inc., supra; 20 NYCRR 528.13[c][2][example 3]; cf. Matter of Niagara Mohawk Power Corp., supra [transformers used in distribution of electricity to customers are not used in the production of electricity]).

E. Finally, petitioner argues that the hand torch and arc welder are exempt from tax under Tax Law § 1105-B(a). Section 1105-B(a) provides that retail sales of "tools and supplies for use or consumption directly and predominantly in the production of tangible personal property . . . for sale" shall be exempt from tax. 20 NYCRR 528.13(e)(2) defines the term "tool" as a "manually operated implement for performing a task." The Division argues that the exemption under Tax Law § 1115(a)(12) applies to "machinery and equipment" used directly and predominantly in the production of tangible personal property but does not apply to "tools". The Division does not address the applicability of Tax Law § 1105-B to the hand torch or arc welder.

As noted above, the hand torch and arc welder were used to fabricate other tools such as pot rakes, pot muckers and skimmers which themselves were used directly in the production of aluminum. Thus, the tools fabricated by the hand torch and arc welder, if purchased, would have been exempt from sales tax pursuant to Tax Law § 1105-B(a). The question is whether the

purchase of tools used to fabricate the pot rakes, pot muckers and skimmers are also tax exempt under section 1105-B(a).

In this case, the hand torch and arc welder were used only in the fabrication of tools. These two items have a useful life of approximately ten and five years, respectively, whereas the tools they fabricate have a much shorter useful life (e.g., under continual usage, skimmers have a useful life of approximately one week). Therefore, given the short useful life of the tools fabricated by the hand torch and arc welder, it appears that the hand torch and arc welder were purchased to supply, in a pragmatic and efficient manner, tools used in the production line. Mindful that these taxing statutes should receive a practical construction (see, Matter of Niagara Mohawk Power Corp., supra) and given these particular circumstances, the tax exemption pursuant to Tax Law § 1105-B(a) should be extended to the hand torch and arc welder as tools used directly and predominantly in the production of aluminum.

This interpretation of the statute is consistent with the interpretation in the regulations of Tax Law § 1115(a)(12) concerning machinery used directly in production. Under the regulations, the tax exemption for machinery and equipment used directly and predominantly in production is extended to machinery used to produce other machinery in production (see, 20 NYCRR 528.13[c][3]). Under these circumstances, a similar interpretation should be given to the tax exemption in Tax Law § 1105-B(a) for "tools" used directly and predominantly in the production of tangible personal property.

E. The petition of Reynolds Metals Company is granted and the Notice of Determination, dated July 29, 1994, is cancelled.

DATED: Troy, New York
July 31, 1997

/s/ Marilyn Mann Faulkner
ADMINISTRATIVE LAW JUDGE